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Immune response characterization in HIV/HCV co-infected patients of medicine tropical foundation

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Background

The epidemiology of co-infection of human immunodeficiency virus and hepatitis C virus (HIV/HCV) is around 30 to 60%. Approximately one third of HIV infected shows C hepatitis, with a high rate in hemophiliacs and drug users. Recent publications demonstrated that HIV positive patients co-infection with HCV have a co-factor to develop AIDS. The purpose of this study was evaluate the cellular and humoral immune response and cytokines in HIV/HCV co-infected patients in Foundation of Tropical Medicine of Amazonas.

Methods

After consent term assignature, the population of T lymphocytes $CD4^+$ and $CD8^+$ was analyzed in the whole blood by flow cytometry and a blood sample was take to measure the serum concentration of inflammatory cytokines (interleucine – IL - 6, 8 and tumoral necrosis factor alpha-TNF-α), cytokines of T_H1 (IL-12, Interferon gamma-IFN-γ) cytokines T_H2 (IL-4) and suppression cytokine (IL-10) using ELISA BD OptEIA® *kit*.

Results

As for $CD4^+$T cells 72.2% had < 500 cls/mm3 with a median of 271 cls/mm3, on the T $CD8^+$ 88.9% had ≥215 cls/mm3 with a median of 794.5 cls/mm3. The ratio $CD4^+/CD8^+$ was 0.32 cls/mm3. When the dose cytokines IL-4, IL-6, IL-8, IL-10, IL-12 and IFN-γ in the patients found that only the IL-6 ($p =< 0.001$) showed statistical significance especially when correlated to the logarithm of the HCV viral load (0.031).

Discussion

The results found in this study, despite the low prevalence, have annual growth of co-infection due to improvement in the research of hepatitis C in patients with HIV and the IL-6 cytokine was important marked of inflammation in this studied population.

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